

# THE BRICKBUILDER

VOLUME XIX

JULY 1910

NUMBER 7

PUBLISHED MONTHLY BY ROGERS & MANSON

85 Water Street

Boston, Massachusetts

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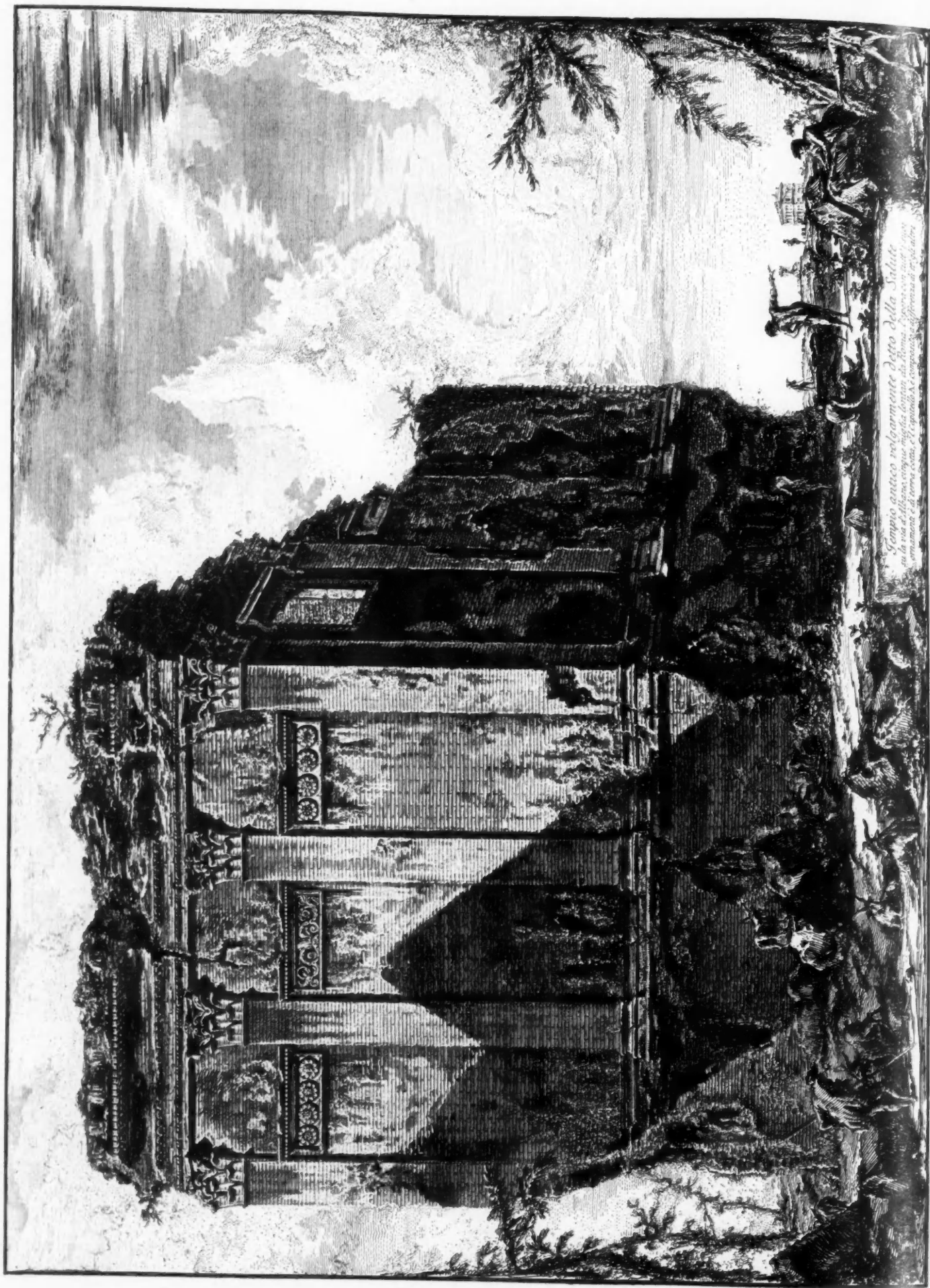
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RUINS OF A BRICK TOMB ON THE APPIAN WAY NEAR ROME.

GIOVANNI BATTISTA PIRANESI DEL.

THE APPIAN WAY, constructed in B.C. 312, was the great highway of communication between Rome and Greece, and the chief road of commerce. This scene, situated about three miles from Rome, is one of the most interesting and beautiful in the neighbourhood of the city. The ruins of the tomb, which is supposed to be that of the Emperor Nero, are still in good preservation. The engraving is from a drawing by the artist, and is published by the author, at the expense of the Society of Antiquaries.

*Tempio antico volgarmente detto della Salute  
sulla via dell'Appia, cinque miglia lontana da Roma. L'opera, con tutti i suoi  
ornamenti, è di terra cotta, e l'edificio è composto di diverse parti di altri*

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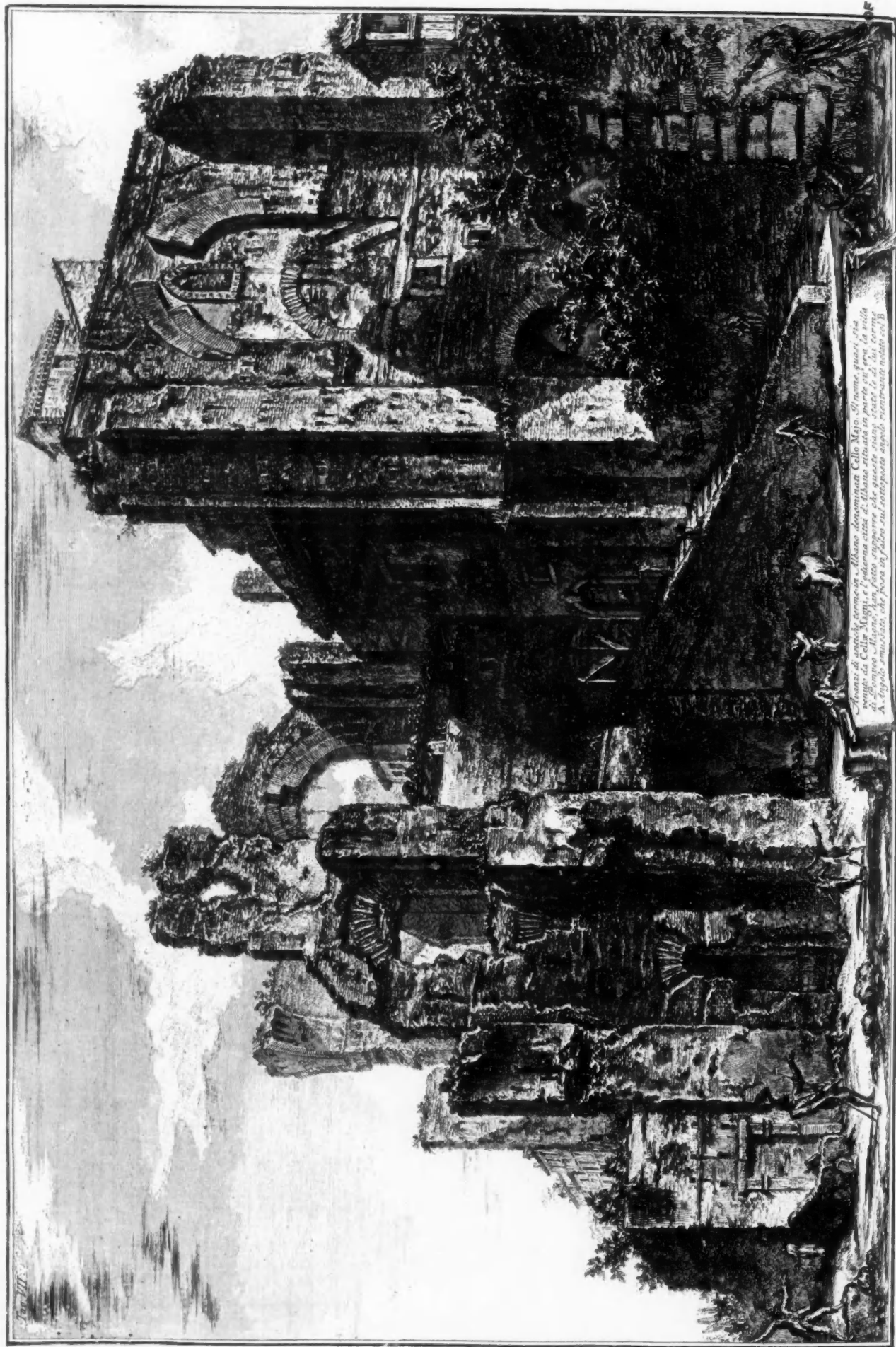
FROM WORK BY

FRANK MILES DAY & BROTHER; DELANO & ALDRICH; FROST & GRANGER;  
GEORGE BISPHAM PAGE; WILLIAM G. RANTOUL; WINSLOW & BIGELOW.

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# RUINS OF THE EMPEROR DOMITIAN'S VILLA IN THE ALBAN HILLS NEAR ROME.

GIOVANNI BATTISTA PIRANESI, DEL.

From the Alban Hills, about fifteen miles south of Rome, there is a splendid view over the Roman Campagna. Various detached ruins in modern villas and gardens here have been identified as forming parts of the villa of the Roman Emperor Domitian, which extended for a distance of six miles over and between the sites occupied by the modern towns of Ariccia, Albano and Castel Gandolfo. The ruins here engraved by Piranesi he designates as the baths of the villa of Pompey. It is probable however that they belong to the time of the Emperor Domitian (81-96 A.D.) who enlarged the villa of Pompey, so that it contained a military camp, enormous reservoirs of water, baths, a theater, an amphitheater and a circular temple.



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## Co-Partnership Agreements Between Architects.

BY JUDGE CHARLES N. GOODNOW.

IN DEALING with this important question, it will only be possible to outline in the briefest manner the principal features of partnership law. This branch of our jurisprudence is as complex and full of trouble for the careless and uninstructed individual as any other branch, and often leads to grave situations and losses to those who in most other matters are regarded as excellent business men.

We often hear it said, "Yourself for a lawyer, a fool for a client," and this is especially true of men who have to look after the interest of others, and no matter how proficient they may be in guarding their clients' interests, when it comes to their own they are usually neglectful, careless and unbusinesslike. This seems to be especially true of architects. In most other business enterprises when a combination of men is formed into a co-partnership, articles of agreement are usually a first consideration, and they, as a rule, are more or less elaborate as the nature of the business demands. The interest of each partner is safeguarded as to his present and future income, his financial interests are fixed, his rights and duties are defined so that the business is protected and the combination is put on a working basis and becomes a business machine, with each partner a cog performing his allotted part so that the combination as a whole works without friction.

It is not necessary that great detail or minuteness be gone into, but sufficient should be put in writing that the interests of all should be clearly defined and not left for the courts to determine at the end of an expensive lawsuit. After an inquiry of some thirty architectural firms in the State of Illinois, I find that less than a dozen have written agreements which could in any way be regarded as a partnership contract, and only nine of the remainder will admit that their agreement is verbal, and several, while appearing as a firm, are in fact acting as individuals and only share office rent. Many of them have the crudest form of contract. One firm of high standing and ability, having been together many years, conducting a large business, has its agreement on the fly-leaf of a book, signed by both members, which only says: "The proceeds shall be equally divided."

Another firm, and one of the largest and best in Chicago, informs me, with apparent honest belief in their statement, upon reply to my inquiry, as follows: "We

beg to advise that there is no law or rule or even legislation governing partnership contracts of architects that we know of." And yet this firm is noted for its ability to protect its clients from all the snares and pitfalls surrounding the building laws and complications that may arise from building contracts.

A verbal contract is as good as a written one when the parties are all agreed as to its terms; but when a dispute arises it is often hard to produce the evidence to prove either side of it. When written it proves itself, and unless ambiguous on its face, requires no parol testimony to construe it.

Partnerships are formed for business purposes—they may be dissolved for many reasons: death, insanity, dishonesty, sickness, refusal to act, old age, incompetency, better business opportunity, expiration of agreement, and many other reasons. When this occasion arises, the articles of agreement should furnish the means of accomplishing the desired results without trouble, friction or loss to anyone.

So far as the architectural profession is concerned they are not specially interested in all the general principles of partnership law, nor in the fine distinctions that have been drawn. Yet they are interested enough in the question to have some outline of the main features that might in some manner affect any partnership contract now existing, or which may hereafter be made, and while I shall deal at some length upon partnership law, I shall try to limit myself to that law which may interest the profession generally and be of value to the individual, and which, if followed, will protect him from serious inconvenience and loss, and enable him to forestall trouble for himself and his family in case of death of either himself or one of his partners.

**NATURE OF PARTNERSHIPS.** A partnership is a business relation existing between two or more persons, legally capable of contracting, arising out of a contract by which they agree to unite their property, credit, services, skill or influence in some business, so that they have a community of interest in such business, and usually divide the profits and losses between themselves in a fixed proportion.

The contract of partnership may be *express*, and as such, either written or oral. An oral contract in many of the states is by statute, made unenforceable with reference to its duration where the contract of partnership is to last for more than one year from the date of the

NOTE.—Judge Goodnow was formerly Attorney for the Board of Examiners of Architects of the State of Illinois.

making. It comes within what is called the Statute of Frauds. The contract of partnership may be *implied* from the conduct of the parties. It may include a single transaction as well as an extended series of transactions. As between the parties, the question of partnership is one of intention, being in the first instance a question of fact; but when the facts are conceded or established, a question of law.

If the parties enter into a relationship which the law holds to be a partnership they are partners, although they may not have known the legal effect of their acts, or though they may have called the contract one of employment.

**PARTNERSHIP NAME.** A partnership may, in the absence of some statutory provision, transact business under an arbitrary or a fictitious name, so long as the name will not deceive the general public as to the identity of the individual members or hold out the partnership as a corporation.

**TEST OF PARTNERSHIP.** The real test of the existence of a partnership is a community of interests in the partnership business. Sharing of profits and losses is so usual an attribute of a partnership that it is implied from the relationship and there need not be an express agreement to share losses. An agreement to share losses is implied from a contract to share net profits. However, as the question is one of intention of the parties, it is not safe to make even this an arbitrary test. If, however, there is no community of interest or common control in the business transaction, mere sharing of profits and losses by special contract does not constitute a partnership.

**LIMITED PARTNERSHIP.** In all states of the Union, partners as between themselves may form a special or limited partnership, fixing the ratio of profits or losses and limiting their liability as to partnership debts as between themselves, but as to the general public, except in those states where laws exist regulating limited partnerships, all partners are held liable for the partnership debts, and in those states a strict compliance of the law in all respects must be had in order to avail of the limitation of liability allowed.

**POWER OF ACTION.** The general scope of a partnership is generally a question of the intention of the partners as expressed in their partnership contract. So far as the law is concerned there is no restriction on the exercise of such powers as it chooses at any time to exercise, except such limitations as are expressed in the contract or such prohibitions by statute, or on illegal, immoral or fraudulent conduct as apply equally to individuals.

**LIABILITY OF PARTNERS WITHIN SCOPE OF BUSINESS.** Partners' liability to third persons on partnership contracts arises from the actual existence of the partnership, by express acquiescence, by ratification and by estoppel. If a partnership exists as a matter of fact, the partners are liable on contracts made within the scope of the partnership business by any one of the partners, if the other contracting party knows of no limitations on his authority to contract, even though the other contracting party did not know who such partners were when he entered into such contract. If the contract is within the actual scope of the partnership business the members are liable thereon without any reference to principles of estoppel.

**NON-TRADING PARTNERSHIP.** Partnerships are again divided into non-trading and trading partnerships, and architects are in the non-trading class we will only deal with that class. A partner in a non-trading firm has very limited powers to bind the partnership. He may contract for supplies or articles necessary to conduct the business, but he cannot otherwise contract debts. In partnerships not commercial in their nature one partner cannot bind the others by executing a promissory note unless authority is expressly given or recognized by all the partners or implied from general business habits. The courts of the various states have from time to time passed upon these questions so that the general principle is well fixed and determined. They have held that the following classes of persons have no authority to bind their partners on notes or contracts, etc., without their express authority: Attorneys, mining partnerships, physicians, publishers, planters, contracting and building, digging tunnels, farming, real estate, paving and curbing streets, keeping a tavern; we thus see that architects are in a similar class to the above.

**ESTOPPEL.** Although no partnership in fact exists, or although its powers have been exceeded, third persons who have been misled as to the existence or powers of the partnership, and have acted in reliance on such belief, may enforce partnership liability against those persons who have so misled them and held themselves out as members of the partnership in question, or have held out the person with whom such third person dealt as a member thereof, and a partnership may be liable for the transactions of one whom they allow to act as a partner, if the transaction is within the apparent scope of the partnership authority.

The reason for this general rule is that third persons are not bound to know of the existence, scope or power of a partnership, and under principles of estoppel may rely upon representations made to them, believed by them and acted on by them, so as to preclude those making such representations from afterwards denying them. However, estoppel can exist only where there is some wrongful act or omission of the person against whom estoppel is sought to be enforced.

In order to estop one from denying his liability as a partner, the person in whose favor the estoppel is alleged must have acted in reliance upon the facts which are claimed to create the estoppel.

**DISSOLUTION OF PARTNERSHIP.** A partnership when once formed may be dissolved by the agreement of the partners, or by the act of either, even if before the time for which the contract was to last, although his right to exercise that power without just cause may leave him liable in damages for such dissolution. If a partnership is formed to last for a fixed time, but the right to dissolve the partnership by giving written notice is reserved, it may be dissolved at any time by such written notice.

Dissolution by operation of law may be caused by efflux of the time fixed by the agreement, or by death of a partner. There is, however, a qualified existence or continuation of the partnership for the purpose of settlement. By contract it may be agreed that death will not cause a dissolution. In legal effect a provision of that kind upon death creates a new partnership between the

survivors and legal representatives of the deceased by reason of the original contract.

A conveyance of all the firm's property, sale of the entire business, ceasing to do business, and the recession of one partner because the other wrongfully refuses to pay his share of the capital, or to perform his work in the business, causes a dissolution by operation of law. Also a sale of one partner's interest is held in effect a dissolution. Also the taking in a new partner is a new contract and abrogates the old.

A decree of court may also effect a dissolution. Such a decree may be based on fraud, or exclusion from inspection of books, or insanity, or on the insolvency of a partner. Insanity or insolvency, however, are not of themselves a dissolution, but are merely the grounds for a decree of dissolution by the courts.

**PARTNERSHIP AT WILL.** A partnership formed for no specified time is a partnership at will, and may be dissolved at any time by any of the parties. Each partner may withdraw when he pleases, without liability to his associates for damages, if he acts without any fraudulent purpose. The fact that the contract specifies no time is not always conclusive that it is at will, for if the intention appears to continue the partnership until certain objects are accomplished, it will not be a partnership at will but one to continue until its purpose is completed, or the impracticability thereof is demonstrated. Thus a partnership formed to erect a building is not at will but for the completion of the enterprise.

**NOTICE TO DISSOLVE.** A usual and proper method of exercising the right to dissolve is by notice to that effect to the other partner, and there is no dissolution until notice is communicated. If the articles of partnership provide the method, then that must be followed. If not, other notice must be given; this does not always mean that actual notice must be given, as the law, in some instances, implies notice from circumstances.

Perhaps a clearer understanding as to the causes for dissolution will be had if I should divide them into two classes.

No. 1: Events which per se amount to a dissolution.

(a) Dissolution by operation of law, as death, lunacy, war, bankruptcy or declared insolvency, sale on execution of the share or interest of a partner; (b) dissolution as a necessary consequence of the act of one or all of the partners, as a sale of the entire interest of one partner, abandonment by all.

No. 2: Events or acts which are grounds of dissolution are: (a) those for which an injured or innocent partner may elect to consider the firm dissolved, as for example, the absconding of a partner or abandonment by him; (b) those for which a dissolution may be decreed by a court of equity on the application of a partner, as fraud and misconduct; impracticability of continuing from impossibility of succeeding, and from impossibility of getting along together peaceably.

**CONTINUATION OF PARTNERSHIP AFTER DEATH.** Partners can agree that the death of any of their number shall not terminate the partnership or require a winding up, which is always necessary when one partner dies. This is frequently done when the name of one or more of the partners is desired in the business for the business it may bring, or to provide an income or business for his heirs

after death. But such agreement must be expressed in clear and unambiguous terms.

**NOTICE OF DISSOLUTION TO THIRD PERSONS.** Upon a dissolution by operation of law or decree of court, no notice to third persons is necessary. It being of a public and not of a private nature, the law presumes that all persons take notice; but as to all other methods of dissolution, notice is necessary, and as to this there are two kinds of notices required whether there be a complete dissolution of the concern, or the retirement of a single partner, or the addition of a new member, it does not affect the outside world unless notice is given. Actual notice must be given to all former customers of the firm and notice by publication to the other persons.

One class of persons has become acquainted with the firm and by presumption of law with its membership, by reason of business transactions, and these are entitled to the same certainty of notice of dissolution as they had of its existence, which is actual knowledge. The rest of the world, that part which has not given credit to the firm or transacted business with it, has become acquainted with it from the fact of its existence, from reputation, hearsay or their own observation, and this is to be counteracted by a publicity of the same sort, and at least measurably, as widely spread, viz., proper publication, generally by advertisement in the proper newspaper.

**WHO MAY BECOME PARTNERS.** There is one other general proposition to be understood in all partnership contracts, and that is, who are proper parties to make a partnership contract. Two or more individuals may contract as partners when none of them are infants or insane; two or more corporations cannot make a partnership agreement; nor can a corporation and an individual become parties to any kind of enterprise. It has universally been held to be against public policy and such contracts are held to be void, and neither side can recover from the other; the law leaves them where it finds them without remedy and grants no relief.

Having treated this question but briefly from the organization to the dissolution of a partnership, there are several other necessary elements that require understanding.

While it is true that the architectural profession is in the non-trading class, and the necessity for contracting partnership debts is limited owing to the fact that brains and ability are the largest asset and no stock in trade is required to conduct the business except an office, drafting room, library, necessary help and supplies, and as the business grows older the accumulated plans and specifications, still these items often run into large amounts and to this extent each partner is individually liable and interested, and I desire to outline the legal status of the partners: First: Upon a dissolution by death or mutual consent or by any act whereby the partnership ceases to exist; or, Second: The withdrawal of one or entry of a new partner and the continuation of the association of some of the members.

The death of a partner per se dissolves the firm at once for all purposes, unless provided against by contract, and is as effective as though dissolved by mutual consent, lapse of time, or by any other reason that brings the contract to a close.

Upon dissolution in any manner than by death or bankruptcy, the authority of each partner at once



changes, and while heretofore they acted as agents of one another, the general scope of that agency is now limited. Except as to persons not properly notified of dissolution, the only power remaining is that which is necessary to wind up the partnership, to collect moneys due, and to pay off debts and to divide. If dissolution is caused by death the whole title devolves upon the surviving partner, and for this reason he stands upon a different ground. But assuming a dissolution by mutual consent or by efflux of time, or in any other way, the power to carry on the business is wholly gone and has become a mere right to wind up, with one exception only of unfulfilled transactions and contracts which they are under obligation to carry out. As partners cannot release themselves from an incompleting contract by dissolving, or have no right to dissolve as to such contract, and as death does not discharge the obligation, each partner has the power after dissolution to carry out such contract, and the other parties are bound by his acts and his fidelity in so doing.

If the firm has entered into an executory contract which is only partially fulfilled at the death of one partner, his death does not absolve either party from performance, and the existence of the partnership with its active functions continues in the surviving partner for the purpose and with the duty of fully performing the contract. The surviving partner has the exclusive right of possession, management and control of the entire property for the purpose of winding up, although generally he is not entitled to compensation for his services. If there are two survivors, this right and duty devolves equally on both.

As the possession of the surviving partner is only for the purpose of winding up, he has as little right as any other partner after dissolution to make new contracts or change the form of old ones. Nor can he incur any liability except for expenses proper to the legitimate winding up of the business as distinguished from continuing it. There is only one other exception to this rule, and that is when contracts have to be completed, when it is the duty as well as the right of the surviving partner to complete unfinished contracts from which death does not absolve the firm, and for this purpose he may even borrow money or incur other legitimate debts. If the surviving partner is guilty of misconduct or bad faith in winding up the business, or if he is misapplying the funds, or in any way diverting the assets, he can be controlled by application to a court of equity and an injunction obtained either with or without a receiver.

Upon the dissolution of a firm by the withdrawal of one member or the coming in of a new member when the business is continued, the most essential thing to be done is to give full and ample notice in order to limit the liability. To the outgoing member it is necessary in order that he be not charged by subsequent incurred debts, and to the incoming member that he may not be involved as to previous debts, and to the remaining members that the public be notified that all subsequent payments may be made to the proper parties.

My general observation of architects' partnership agreements calls for a severe criticism, largely from their lack of many of the ordinary precautions necessary to protect the individual interests of their members. As

long as the members agree and no contest arises, and as long as the members live, there is little occasion for much detail. It is only when discontent and discord arise, or when death works a dissolution, or one or more members desire to withdraw or dissolve the agreement, that the necessity arises to have the method clearly outlined and the interests of each well defined. If prudence and good business policy have not arranged this in advance by a proper agreement, the result may mean a lawsuit to dissolve the partnership, a bill for an accounting, and all the annoyances and expense incident to litigation.

It would be a difficult matter to outline here a form of partnership agreement that would meet the conditions in every case, but enough may be given as applying to every contract of partnership, to which may be added any special features desired. There are, I find, several special features in many of the contracts brought to my attention which, with many of my own suggestions, I wish to outline briefly:

**TIME PARTNERSHIP BEGINS.** The date of the beginning of a partnership is a matter of importance because the agency of each to act for all and the right to share profits begins then.

**DURATION.** It is also important to fix the duration of the partnership for the reason that unless fixed it is a partnership at will and can be dissolved at the pleasure of any partner without liability to his co-partners, however ruinous the consequences to them.

**CONTINUATION OF AGREEMENT AFTER DEATH.** As death or bankruptcy of one partner will terminate the partnership, if it is intended to continue the business in any way for the benefit of the estate after death of one of the members, this fact should be clearly expressed. At times the immediate dissolution and winding up of the firm's business may be disastrous both to the surviving partners and to the estate.

**BUSINESS.** The objects for which the partnership is formed should be clearly defined because its nature and requirements are the measure of the power of each partner to bind the firm. It is usual to insert a clause requiring all the partners to devote their entire time and attention to the business, and the observation of good faith to each other and fidelity to the common interest, and not to engage in any other business so long as the partnership exists.

**FINANCE.** If the architect is conducting his own business there is only one arrangement he may require, and that is when he gives to some employee a working interest. This is to be regarded as a partnership only in the most limited sense. It usually calls upon him to finance the business and stand responsible for all expenses, while he either guarantees a fixed amount per week and a percentage on the net earnings, or a fixed amount per week and a percentage on all work brought in by the employee. This arrangement often gives a living wage to a good man and at the same time offers him an inducement to hustle for work. This arrangement is frequently made by some of the larger firms with their leading draftsman or superintendent, and often proves beneficial to both. These men, however, do not have their names in the firm. It is quite often in large offices that they work the financial end on the co-operative plan, each man having a fixed or drawing account, and at the end

if the year from the net profits each man receives a percentage according to his salary. This, of course, makes a booster for the business out of every employee, for his own profits depend on the amount of business brought into the firm.

If the firm is composed of two or more, expenses and profits are usually shared equally. If one or more of them are older men in the practice and have a larger interest, after the expenses are paid the profits are divided in such proportions as may be agreed upon, each one usually drawing a fixed amount for family expenses, and the younger members of the firm, or the less experienced ones, receiving from the net profits a certain percentage, or a percentage on the work brought to the firm by them.

In all well regulated firms, all moneys received are deposited in bank and checked out as required, all checks signed by one member and countersigned by another, thus avoiding the overdrawing of an account by any one member, which is often a source of much trouble. However, in the case of overdrafts, if any, it ought to be provided that interest should be charged upon sums in excess of the regular stipulated amounts; unless this is expressly done, overdrafts will not usually draw interest.

**DUTIES.** When a partnership is formed between men skilled in different lines, that part of the work is usually a part of their agreed duties, and quite frequently we find that one is assigned to the handling of the office force, drawing of the specifications, receiving the bidders and making all agreement with contractors. Another looks after the outside work and payment of the bills and settlement with contractors. Another may attend to the making of sketches or planning the structural iron work and the necessary testing of the accuracy of the work — in fact each one being assigned to the work according to his particular ability. If, on the other hand, each is well skilled, the work is usually apportioned as it is received.

**ASSETS.** The ownership and disposition of the assets are at times an important feature, and outside of the library or books which accumulate from time to time, and the fixtures which have only a small money value, the drawings and specifications of an architect's office often become very valuable. When architects before becoming partners have on hand a large number of valuable plans, etc., it is often provided that these plans, etc., shall continue to be the personal property of the individual, but the partnership shall have their use and to all subsequent plans drawn during the partnership. This is often satisfactorily arranged by making, in the first instance, copies for each partner, which then become the property of the individual members, thus giving each in case of dissolution complete working plans and specifications of all the buildings in which the firm was interested.

At this point allow me to discuss the one subject which for years I have been insisting upon, and which if followed by all architects would increase the business and make their plans more valuable; and that is, in your contract with the owner, reserve the ownership of all plans and specifications — only lease them or give him the right to erect one building from them — and when your work is done call in all plans and specifications, and if

he wishes their use to erect another building from them, be in a position to re-lease or re-sell the right to erect another building. Do not for one commission sell the perpetual right to your skill and ability.

**BOOKKEEPING.** A complete set of books should be kept in which all receipts and disbursements should be accurately entered. With many firms monthly balance sheets are issued and all net profits shown thereon are subject to be declared as monthly dividends. With some firms these dividends are only declared semi-annually; with others only annually. In either event the monthly balance sheet is available to tell the exact financial standing of the firm.

**DISBURSEMENTS.** In some contracts we find no limitation placed upon the spending power of the individual members for partnership purposes, while in others no member can spend on behalf of the firm more than a certain fixed amount (say \$5) without the consent of the other members. This has its merits, for a free spender could greatly reduce the net profits by foolish purchases, and it is a good system of economy to plan a safety valve near at hand to check a disposition to extravagance.

**SIGNING OF BONDS AND NOTES.** So much trouble has arisen out of the habit of signing bonds and accommodation paper for others that the best partnership contracts usually contain a provision that no member of the firm shall sign any bond, indorse any paper or become security on a note or bill, or guarantee the performance of any contract, except for some other member of the firm, or upon the consent of all the other members of the firm, and in some cases there are no exceptions even in favor of the members of the firm.

**STUDY.** One of the most unique, and to my mind liberal, agreements drawn with a view to the ultimate benefits to the business exists between the members of a leading firm who have a large and lucrative practice. This agreement, among other things, provides the following:

"In case it should be the wish of either partner to take a prolonged tour to Europe or elsewhere for the purpose of professional study, he shall be at liberty to take such a tour or tours for a period of time in the aggregate not exceeding one year without loss of salary or interest in the profits of the business; said tours, however, to be at the personal expense of the partner taking the same, and not to be taken at the same time by both partners.

"And it is also mutually agreed that for the purposes of advice and consultation during such prolonged absence of either partner, the absent partner may designate some person as his attorney and representative, such representative to be kept informed as to the progress of said business and to be allowed access thereto at all reasonable times."

This arrangement was made with a view that in the end the business would receive the benefit of such study and research.

**OBTAINING BUSINESS.** The same firm above referred to has another clause in its agreement that shows foresight and business acumen, as follows:

"It is also mutually agreed that the annual dues of said 'A' in the \_\_\_\_\_ Club (one of the largest and most influential clubs in the city) shall be considered as a business expense and shall be paid by the firm, and when the said 'B' shall deem it for the interest of the firm that he join said club, or any similar city club, then the annual dues of said 'B' (but not the initiation fees) in said club shall be paid as a firm expense.

"It is also mutually agreed that the annual dues of either partner in any architectural society, such as the American Institute of Architects, the Chicago Chapter of the same, the Chicago Architects Business Association, etc., shall be paid by the firm as a business expense, and the expenses of either partners in attending the conventions of the American Institute of Architects, whether said partner be a member of said Institute or not, shall be paid by the firm."

The intention of the foregoing provisions is that in all cases in which membership in a society or club is largely for the interest of the business, then the expenses or annual dues, but in no case the initiation fees, shall be borne by the firm. This same idea is often applied to expenses incurred in entertaining clients or prospective builders, provided the sum expended does not exceed a stipulated amount and a statement is presented within twenty-four to forty-eight hours after the expenditure.

**DISAGREEMENTS.** An agreement to submit disputes to arbitration is a common provision where two or four partners are in a firm when a tie may exist—otherwise the majority rules.

**NOTICE TO PARTNERS OF DISSOLUTION.** The time limit and method of dissolving a partnership agreement varies, often ranging from thirty days to one year, upon notice in writing being served upon the other members.

**DIVISION OF ASSETS ON DISSOLUTION.** The methods of division of profits and assets and payment of debts are a matter of agreement. One firm provides that all original plans and specifications owned by the firm shall become the property of the remaining member or members of the firm, the outgoing member having the right at his own expense to have all plans and specifications copied for his use. The other assets may be valued and the remaining members pay to the outgoing member his proportionate share of that value, and in case of dispute submit to arbitration. All accrued profits to be paid upon the regular dividend period and the value of all uncompleted contracts to be determined as of the date of dissolution and the outgoing member to be paid his share on the date of the next succeeding dividend period, or when said contracts are completed and paid for. All these payments to be made, however, after all debts of the partnership have been fully paid and settled.

**DISSOLUTION BY DEATH.** A prominent firm in New York City has a contract which provides that the death of one of the partners works a sale to the surviving partners, and the provisions therein are interesting enough to give them in full:

"Each partner agrees and covenants to and with the other partner that in case of the death of either partner, the surviving partner shall be entitled to, and shall and will, continue the business, use the firm name therefor, and own and possess for himself the good-will of such business, and also all the other property of the firm, and each one for himself hereby agrees, and does hereby bind himself, as consideration for the deceased partner's equal one-half share therein, to fulfil the terms, covenants and agreements, and make the payments, next hereinafter provided, as follows:

"1. The books of the concern shall be balanced on the next semi-annual settling day following the decease of the partner, and in such balance shall be included commissions earned on unfinished work in progress at or prior to the death of the partner, estimated according to the stages fixed by the schedule of rates of the firm, though not payable at the day of the death; and the legal representative of the deceased partner shall be thereupon entitled to draw such proportion of a partner's share under these articles of the net profits appear-

ing by said balance as the fraction of six months fixed by the death shall bear to the whole six months, as the same shall be collected.

"2. Such surviving and continuing partner shall pay to the legal representatives of the deceased partner the sum of . . . dollars thereof within thirty days after the appointment and qualification of such legal representatives, and . . . dollars at the end of six months from the death of the partner.

"3. He shall also pay to the legal representative of the deceased partner, twenty (20) per cent of all gross commissions to be earned and chargeable and collected on work commenced or undertaken, or in progress at or before the date of the death of the partner, as such commissions shall be earned and collected, and to this end the said legal representatives shall be entitled to receive from him, within thirty days after their appointment, a statement or list of all such work commenced or undertaken, or in progress, and such twenty per cent of commissions shall be paid to said legal representatives quarterly as the same shall be collected."

A prominent Chicago firm has a somewhat different arrangement, as follows:

"In case of the death of one of said co-partners, the surviving partners shall pay to the representative of the deceased partner the share of said deceased partner in the profits of said co-partnership, when such profits are collected, arising from work done prior to such death.

"In addition thereto said surviving partners shall within sixty days after such death pay to the representative of the deceased partner a sum equal to one-sixth of the net profits of said co-partnership for the year immediately preceding such death, and said surviving partners shall receive in return a transfer of all the interest of said deceased partner in the furniture, fixtures, plans and specifications and other goods and chattels belonging to said co-partnership, and the good-will of the business of said co-partnership.

"There shall be included in such transfer the interest of the deceased partner in the plans and specifications referred to in the third article of this agreement."

**EMPLOYMENT AND DISCHARGE.** In some of the large firms where many men are employed, we find it provided in their contract that no clerk, draftsman, superintendent, apprentice or other employee shall be discharged, taken or engaged in or about the business, or at the expense of the firm, by either of the partners without the consent of a majority of the co-partners. In some others, we find that the power to employ and discharge employees is delegated to one partner.

**PROFITS.** It is frequently provided that all premiums and apprentice fees paid or to be paid by any person received into the business shall be considered as part of the profits. Also that all prizes on contests go to the firm as profits. Also that when one of the partners accept an official position that all the partners shall assist in the work to be performed under that position, and that the salary and the profits shall be part of the profits of the partnership.

**DISCHARGE OF DEBTS.** Another very essential agreement is that neither of the partners shall, without the consent of (a majority) (the other partner), compromise or release or discharge any debt or debts due or owing to the firm without receiving the full amount thereof, or do any act whereby any debt or security shall be in any wise diminished or discharged.

There are many different forms of partnership contracts, each varying as the interest of the parties demands, but sufficient has already been outlined to make a complete working agreement for the general run of architectural firms if followed, not to the letter but in its general provisions.



## Sutton Place, England.

BY ARTHUR G. BEIN.

*Photographs by Thomas W. Sears.*

SUTTON PLACE, one of the finest old brick and terra cotta manor houses of England, stands to-day in excellent and perfectly habitable condition. It was built about 1520, by Henry VIII.'s privy counselor, Sir Richard Weston, and has remained in the same family ever since. As the Westons were stanch Roman Catholics their fortunes declined in a court where Protestantism was always increasing; they therefore had no money to spend on keeping their ancient home in repair.



Its splendid preservation is due to the elemental durability of the brick and terra cotta with which it is built.

For more than the use of these materials, then novel in England, is the old place conspicuous. Unlike the many stone dwellings that preceded it, it shows not a trace of the feudal. Nothing was planned for defense—Sir Richard Weston seemed to foresee the long, long peace that was to settle on England, and to dare build himself a home that is surprisingly modern—where the visitor would no longer be repelled by frowning gateways, grim portcullis, and heavy stone walls pierced with hostile slits.

Having decided to inaugurate in England a new style of house made of a new style of material, Sir Richard naturally took advantage of the talents of the skilful Italian craftsmen whom his royal master, a lavish patron of architecture, had invited to England. Moreover, Weston himself, soldier and ambassador as well as statesman, had been to France and had seen the building of the beautiful châteaux along the Loire. His own house, therefore, is full of Renaissance feeling; Italian lightness and fantastic grace embellishing a dwelling that is still Tudor in its mass.

But to ascribe all its symmetry, its resolute striving for design, to the outburst of the new art of the South, would be to overlook the fact that the very nature of the materials used determined to a great extent its form. The disposition of motifs, the simplicity and harmony of fenestration, must have inevitably occurred in a building where the ornament and structural features were moulded and burnt in batches instead of being freely

cut in individual units to suit the fancy of individual workers. Hence are the marked differences between the pleasing innovation of regularity and repetition at Sutton, and the diversity of scale in the stone mansions of its day.

Within forty years after the erection of this famous house, terra cotta had ceased to be used. That in this short time its use was so perfected is amazing. The burning of the blocks is so regular and the alignment of the joints and mouldings so true that from a short distance one could suppose, were it not for the rich color, the work was executed in stone. The vertical height of the blocks between joints is most uniform, although varying in different features; that is to say, in the moulded casings of the large windows the courses are 12½ inches, while in the plain surface blocks of the much attenuated turrets flanking either side of the main entrance they are only 10¼ inches. These terra cotta courses are considerably smaller, and as has been said, far more regular than the stone courses generally seen in contemporaneous stone work. Furthermore, the grandly monotonous bands of decorative diaper pattern crowning the building would have been possible only in terra cotta, for, courageous though the early builders were, it would have been an enormous undertaking in stone; at any rate, for a private mansion.

On first seeing the building one fails to appreciate these niceties of scale and arrangement of bands and ornament. The American thinks himself so familiar with the building that he is apt to pass it over at a glance in England. He has, naturally enough, always looked



upon it as a substitute for the more expensive stone; he frequently misses the fact that there, four hundred years ago, it was deliberately chosen in preference to the cheaper method of stone construction. The builders of Sutton saw its possibilities for expressing the new art that had come to England. For this reason the place is worth a close examination by the American architect, as it will give him many a hint on designing in a way that

will interpret the resources and durability of a material he will have some day to use. It is frankly not a substitute for stone, but an ideal solution of how to express terra cotta.

Sutton lies on the banks of the Wey, four miles from Guildford, Surrey. Approaching it from the main highway it rises from a flat severe expanse of lawn, an aspect the opposite from the charming and appealing garden side, where the façades with numerous gables big and little, and a skyline broken by huge stacks of chimneys, all contrive to make a silhouette most picturesque above a high garden wall.

In general the plan was like all other plans of the early part of the sixteenth century, only more symmetrical, being built around a quadrangle fronted by a lofty tower with an arched gateway flanked by hexagonal turrets. Opposite this entrance the great hall connected the two wings, with the principal apartments at its upper end, the kitchen, buttery and cellars at its lower — the invariable arrangement that prevailed a century before. The original entrance to the quadrangle, with its tower and turrets, has been completely removed, leaving the building an inverted U in shape. It is these ungabled ends of the U, seen on approaching, that form the least interesting view of Sutton.

The brickwork predominates throughout, rich in color, texture, and the patterned surface supposed to have been introduced by Holbein from the continent. In color, it is a sort of beautiful salmon red fading to buff, with darker accents, recalling Compton Wynyates, most famous of English brick and stone mansions. In texture it resembles our burnt bricks of to-day. They are warped and discolored, irregular in shape and surface. The size averages about 2 inches by  $8\frac{3}{4}$  inches, the dark headers 2 inches by  $4\frac{1}{8}$  inches.

The joints are rather large, measuring between  $\frac{1}{4}$  inch and  $\frac{3}{4}$  inch, and the mortar a coarse composition of sand and lime. This mortar is brittle to the touch and can be easily picked out with a pocketknife, yet it has weathered well for centuries and continues to do so — one of the inexplicable features of foreign masonry. The brickwork is laid up with alternate courses of headers and stretchers, except where such arrangement is interfered with by the headers of the diamond patterning.

This diaper is formed with dark headers, eleven courses high, giving a distance of 28 inches from point to point. They are not dark enough, however, to divide the surface into a stiff geometrical series, like so much of our modern brickwork, but are of a subdued bluish tone so light in some places that it fades into the general sparkle

of the whole mass. Mosses and lichens add their color to the picture, but it is above all this sparkle caught by the rough texture in the sunlight that is one of Sutton's greatest charms.

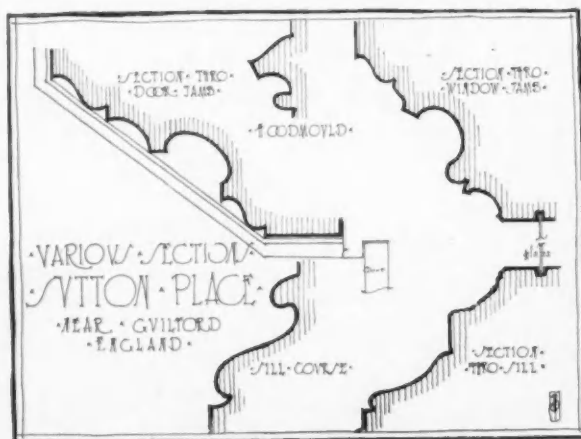
The fine old chimneys cannot be appreciated from the front, as they were not placed in the quadrangle walls; but the garden reveals them in all their splendor. Immediately to the right of the garden entrance rises a triple flue stack, each flue encased in an octagonal shaft and separated from its neighbor by an air space, though the caps and bases are connected. It is a masterpiece of the brick-builders' art, for its various intersections and intricate cutting tell of difficult work known only to those who have tried to reproduce them.

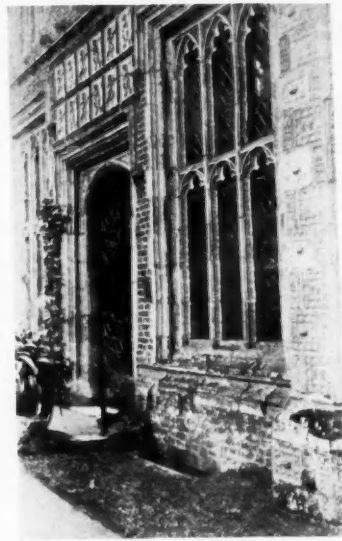
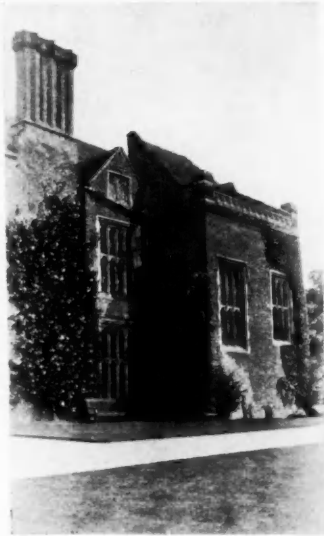
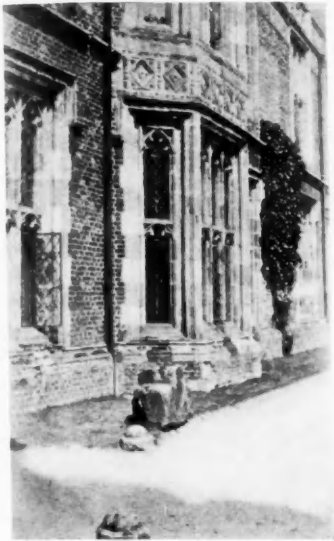
Although the brickwork ranks amongst the first in England, it is after all the terra cotta that most attracts one's attention. If the terra cotta is a departure in the way of material, it is a complete revolution in the way of ornament. There are no large undecorated surfaces, but the entire area of the unmoulded blocks is covered with a flat delicate relief of curious ornament.

So inconspicuous is this relief that from a distance it takes on the appearance of nothing more than a rough texture. A block showing an R. W. alternates with one showing a tun, or wine cask, an attempt at a pun on the family name. This tun occurs in many places on the building, for instance all along the horizontal string courses, but instead of being surrounded by wine leaves and other long-used

devices, we find it in the midst of an entirely new type of ornament. This proves that the terra cotta was made expressly for Sutton Place and not purchased from any ready-made stock, English or continental.

The whole of the ornament is a curious intermingling of old and new styles. Some panels show the Tudor Gothic quatrefoil. For this four separate castings were made; a single quarter of them placed continuously, creating a form of machicolations that is used in another band.





SUTTON PLACE, NEAR GUILFORD, ENGLAND.



Decidedly the most striking part of the ornament is the amorini that disport themselves over the doorways and in the great panel between the turrets. These amorini born in England are heavier and clumsier than those seen in Italy. In the absence of any documentary evidence this would lead one to believe that these are the work of Englishmen inspired or perhaps superintended by the Italians then known to have been in England. The same imperfect expression of the artist's idea characterizes the ornament throughout and gives a quaint and primitive charm.

Where the material is moulded, the section throughout is pure Gothic, as in the window casings and various band courses. But in the big cavettos of these an interesting leaf ornament has been worked—naturally an unheard-of feature in stone. This same flowing ornament is found in the vertical mullions of the windows and in the trefoil heads crowning them. Where the terra cotta and brickwork come together, no attempt is made to line up the joints—they are left haphazard. How the two are bonded together is a matter of conjecture, but in no case can there be seen an intersection, crack, or separation of the materials.

Naturally the question arises, how are these much attenuated terra cotta mullions of the bay windows kept in position without iron, but it must be remembered that this old terra cotta is composed solid and not hollow. The lightness aimed at in modern work was not thought of four hundred years ago. Alterations alone reveal the mysteries of construction in those old places and here, when one of the bays overlooking the central court was being repaired, it was discovered that in back of the corner mullions vertical 2 inch iron pipes joined together to form a sort of framework to which the mullions were fastened, thus strengthening the bay. These were not put in at the time of erection, for reinforced terra cotta was then unknown, but they antedated the memory of anyone now living in the house.

But before any details of ornament or construction are appreciated, one stands captive to the wonderful harmony of color that plays over the whole exterior, emphasizing the close relationship between these two forms of burnt clay. This harmony is attributed to the original polychrome treatment of the terra cotta in shades of red and orange. These have long since faded into a soft rich

assemblage of russets, orange, salmon and straw color, all melting into a warm cream and toning in wonderfully well with the salmon and blue of the brickwork.

The roof, too, is a clay product; the tiles were originally red but now faded into maroons and slate greens, having the effect of shingles, the same in size but somewhat thicker. They are fastened to the roof battens by little oak pegs driven through the tiles and close against,

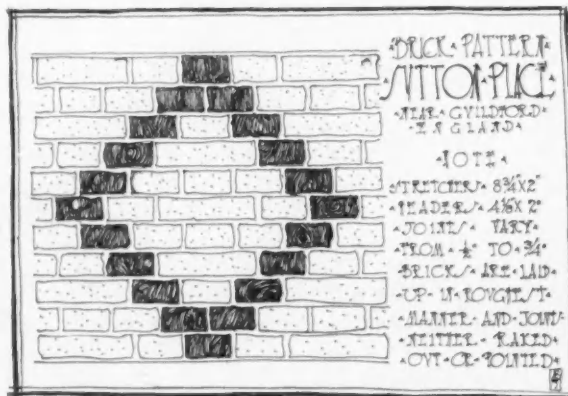
but not into, the batten. This prevents the tiles from sliding while their weight is proof against the wind. From the inside, as in all those old roofs, innumerable little shafts of light gleam through, which fact never retards the owner's solemn assurance of perfect weather-tightness.

As has been said, the fortunes of the Westons steadily declined. After the death of Sutton's founder—a soldier, ambassador, judge, courtier, art patron, who managed to hold to his

Romanism and to weather through thirty-three years of service all Henry's passions of rule, religion, friendship, and love—after Sir Richard's death the family is hardly heard of again, though Elizabeth made them much envied by paying three visits to Sutton. This was to the old man's grandson Henry, named after the treacherous king who had beheaded his father, young Sir Francis, Richard's only son, on a flimsy charge of being Anne Boleyn's lover. Unlike his namesake, the little Henry grew up to be a good man, and though his tenacity to Catholicism forbade his holding any position at court, Elizabeth was known to have a warm personal attachment for him and his distinguished wife, Dorothy Arundel. Perhaps the link of fate between the Queen's mother, Anne Boleyn, and her host's father, the gay young Sir Francis, was what made her always stop at Sutton on her way from Losely, Cowdray, and other manor houses she frequented. And then combined with this was the fact that the Lady Dorothy was

her cousin. During one of her visits a serious fire broke out in the west wing, and even royal favor did not go to the generous extent of repairing it.

This portion of the house which held the main apartments originally, is to-day but four empty walls; every partition is gone. The family have since occupied the south, where the great hall is, and the east wing, formerly the servants' quarters. None of the furniture and tapestry here is of the original stock, that having all disappeared; but I was shown the few remaining



portraits, Queen Mary, Dorothy Arundel, the great grandson who married the Copley heiress, the Weston ladies of the eighteenth century, and many of the collateral Westons to whom Sutton passed in 1782.

This occupied portion—the great hall and the east wing—have little beyond the portraits that is old in the way of furnishings. The original flooring is there, though—18 inch square blocks of smooth stone now covered with good Oriental rugs. Upstairs the floors are wood throughout. These are the original boards, 6 to 8 inches, and surface nailed with the large nail heads plainly visible. In a few rooms where new floors had been needed the boards were only 3 inches, blind nailed and usually bradded at the ends.

The woodwork is good, but not remarkable—terra cotta plays no part in the interior except for the mullions, which match the wood in color. Contrary to modern terra cotta building with reinforced iron, the walls of this early example are as thick as those in the old stone mansions of the day.

With so much inside of Sutton that is, if not positively new, at least far newer than the outside, it is a pleasure to see intact in the great hall the splendid painted glass that Sir Richard placed there. It is second to none in England and is of the same workmanship as the fragments in the Henry VII. Chapel at Westminster. These richly colored arms and devices, set high in the tall casement windows, send across the hall glowing reminders of the kings and queens who visited Sutton, of the illustrious families allied to it, of Sir Richard's many famous colleagues who paid with their heads

for Henry's displeasure, while the honors of Weston ever increased. There are the red and white roses united; the Tudor portcullis and crown; the hawthorn and monograms of Henry of Richmond and Elizabeth of York; the arms of Catherine of Aragon, of Anne Boleyn—in fact, of the five of Henry's queens to whom the crafty old Sir Richard paid homage, though his only son had been beheaded by their capricious lord.

Thus almost untouched since its building, shaded by venerable limes, and with broad open upland all around, stands Sutton Place. No one has sought to improve it, no owner growing in fortune has thrown out a ponderous wing with fantastic gables and profusion of scrolls to mar the quiet refinement of its harmonious brick and terra cotta mass.

Though it bears traces of decadent fortunes, a gateway and front gone, one wing bare and deserted, huge stacks of chimneys from which the smoke never curls upward, the chapel and bell gone, many of the amorini still dancing bravely under lichens and mosses, grounds that cannot be kept up in a way to do it justice, yet Sutton is proud that, while other estates were changing hands or being forfeited to the Crown, it has remained always in the same family; though they were Catholics and royalists, they have held it through the Reformation, through the severe penal laws of Elizabeth, through the Civil War and the Protectorate, and under the Dutch and Hanoverian rule. It still stands like the beautiful House of Pride described in Spenser's *Faerie Queene*—

"A Stately Palace built of Squarèd Bricke."

DETAIL OF PATIO,  
INTERNATIONAL  
BUREAU OF AMER-  
ICAN REPUBLICS  
BUILDING.



LOCATED AT  
WASHINGTON,  
D. C.  
KELSEY & CRET,  
ARCHITECTS.

## A House with Walls of Terra Cotta Hollow Tiles.

BY ARTHUR DILLON.

THERE are a number of questions about hollow tile walls for dwellings that have been answered theoretically to everyone's satisfaction, and that have been answered in actual construction equally well. Anyone who has built a house of the kind becomes quite used to the simplicity and excellence of the construction and ceases to be astonished by it; and also takes it as a matter of course that the answers to the questions referred to are apparent to all. He may have worried beforehand over stresses and crushing strength, absorption and humidity, as well as over minor details of execution; but afterwards he is apt to forget that he worried at all, and so while theoretical answers have been often published, the results of actual use have been left to speak for themselves.

The walls of the house here shown are built of 8 inch hollow terra cotta hard burned blocks, with stucco on the outside and plaster on the inside. Compared with a wooden wall of the usual construction, it gives three thicknesses of terra cotta, one of stucco and one of plaster, as against two thicknesses of wood, one of paper and one of plaster. The first has two air spaces, the other, one. It would seem almost unnecessary to say which is the warmer wall. Yet the first question a prospective builder asks is just that; and usually he has a fixed idea that a wooden wall is the warmer, and a very vague idea of what kinds of wall he is comparing.

It is impossible to calculate exactly the relative conductivity of these two walls, but by taking the factors in them in turn, a more or less accurate comparison can be

\*The relative conductivity of wooden walls and hollow terra cotta walls has been computed by Prof. C. H. Burnside of Columbia University for walls as shown in the accompanying diagrams, using the relative coefficients given above, and the formula

$$H = K \times A \times T \frac{t' - t}{l}$$

A = area  
t' - t = difference of temperatures  
K = the coefficient of conductivity l = thickness

As the computation is concerned with relative conductivities only the common constants can be eliminated in the formula reducing it to

$$\frac{Kb}{l}$$

where b = the width of the area considered.

Applying this formula to areas one unit high and 48 inches long, we obtain for the different substances these values.

### WOODEN WALL.

$$\begin{aligned} \text{Plaster } \frac{48 \times .0001}{3/4} &= .0064 \\ \text{Studs } \frac{3 \times 2 \times .0001}{4} &= .00015 \\ \text{Outside Covering } \frac{48 \times .0001}{5/4} &= .00384 \\ \text{Air bet. Studs } \frac{42 \times .00005}{4} &= .000525 \\ &= .010915 \end{aligned}$$

made — one that is exact enough for all purposes. The relative conductivities of wood, plaster and terra cotta are, as 100, 100 and 150; that is, wood and plaster are equal, and terra cotta one-half better than wood as a conductor, which is to say that wood is one-third better as an insulator. These are the relations commonly used in refrigerating and heating computations. There is, it must be said, a wide variation in these proportions in different tables; but these seem the most authoritative. There is no coefficient for the building paper. It varies so much that each kind would need to have its own, but it seems safe to give the kind generally used the same conductivity as  $\frac{1}{4}$  inch of wood.

Taking these values, we find that through the air spaces the hollow tile wall is one-eleventh better than the wooden wall. Through the webs in the one case, and through the studs in the other, the hollow tile is about one-twenty-fourth better than the wood. The average gives the hollow tile wall as between eight and nine per cent better than the wooden one, and in this we have counted the clapboards or shingles as solid, which is a far more favorable condition than really exists.

This comparison, however, omits the chief factors in the real insulating value of the wall. These

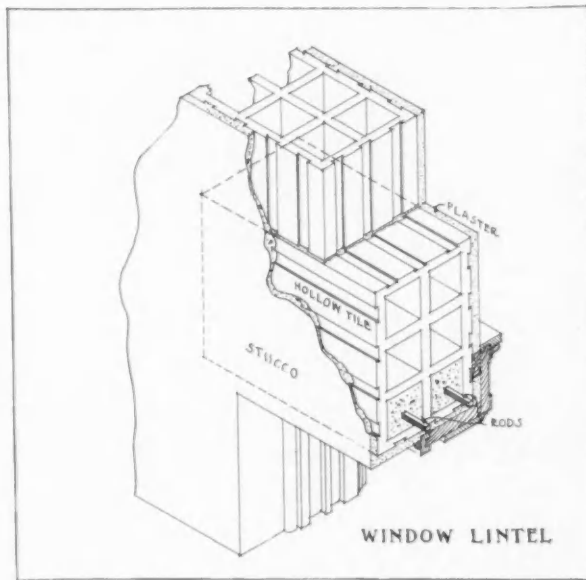
are air spaces and leakage. The conductivity of air does not here make much difference, for the transportation of heat by the air takes place by convection, that is, by a movement from place to place of heated particles; and considering the spaces of the dimensions we have to deal with, the convection in the one space in the stud wall is about equal to that in one of the two spaces in the hollow tile wall; and therefore considering air spaces alone, the hollow tile wall is twice as good for keeping the heat in, in winter, and out, in summer.

Taking then the values of the solids that make up the two walls and the values of the air spaces, the hollow tile wall is more than twice as good as the wooden wall, leakage not considered.\*

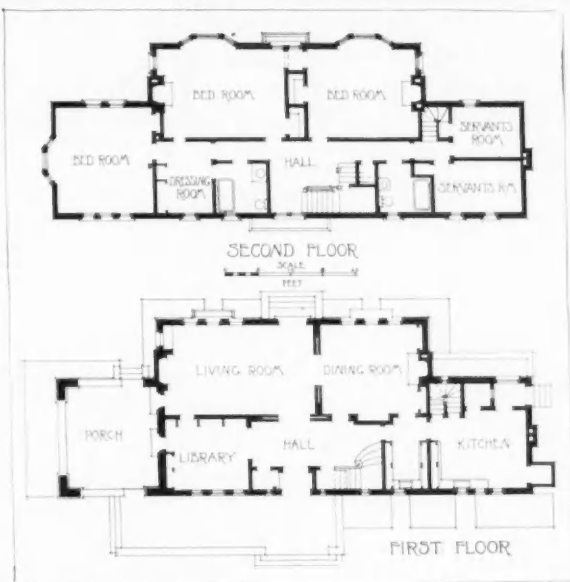
### TILE WALL.

$$\begin{aligned} \text{Plaster } \frac{48 \times .0001}{2 \times 3/4} &= .0032 \\ \text{Air Spaces } \frac{36 \times .00005}{23/4} &= .000313 \\ \text{Tile between } \frac{36 \times .00015}{3 \times 3/4} &= .0024 \\ \text{Partitions } \frac{4 \times 3/4 \times 4 \times .00015}{8} &= .000225 \\ \text{Partitions } &= .006138 \end{aligned}$$

This gives a ratio of 1.78. Not considering the air, the ratio is 10.390 to 5.825, somewhat higher and both considerably more favorable to the terra cotta wall than the approximations given above.







HOUSE BUILT OF TERRA COTTA HOLLOW TILE BLOCKS WITH PLASTER FINISH AT ORANGE, N. J.  
Dillon, McLellan & Beadel, Architects.

If the wooden wall is carefully built, all the laps and joints carefully made, with a good coating of paint over all, and no tears in the building paper, leakage might be neglected — until the wood shrinks, which will be in about a week of the right kind of weather, or in six months at the most; and it will continue indefinitely to move, one way and then the other with the temperature and humidity. The result is that the air in the hollows of the walls is constantly changing, leaking out as it becomes warm and being replaced by the cold air from the exterior, which in turn sucks the heat from the interior, from which it is separated not by the array of layers of wood, plaster and paper that we have been considering, but actually by nothing more than one thickness of plaster. If the cracks in the outer layer should be sufficiently great, the circulation of the air would make the wall for all purposes of warmth no better than the one layer of plaster. Fortunately, such a condition rarely if ever occurs; but it would seem safe, bearing in mind the effect of cracks, to put the efficiency of the hollow tile wall at three times that of the wood; for it has practically no cracks. In very bad work the stucco may crack, but it will rarely crack through to the tile without coming off completely in the course of a season, and so compelling repairs, if only for appearance' sake. Open joints in the tile are nearly an impossibility, for if they are left open by negligence when laying the blocks they will be smeared full when the stucco is troweled on. But in case it does crack and the crack crosses an open joint in the tile, the result is a hole as wide as the crack in the stucco, and as high as the crack in the joint. This is not a great hole. A toothpick would about fill it and the air that might leak in would still only be in the outer of the two air spaces.

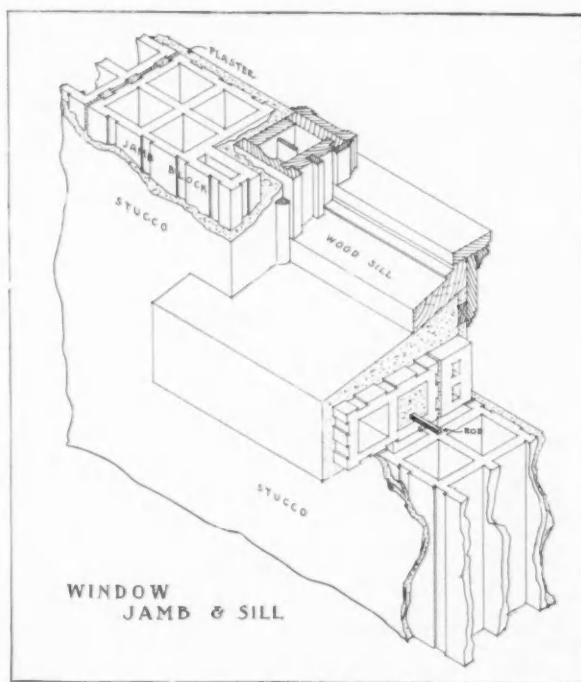
The second idea that a prospective builder is apt to have is that "wooden houses are drier." They are drier than houses with solid masonry walls, but if the masonry walls are furred, which is to say provided with an air space, there can be nothing to choose in that respect, granting that the dampness comes through the walls. As for dampness creeping up from below by capillary attraction, it hardly seems probable, considering the half-inch layers of cement mortar in the joints; that amount of cement plastered outside a cellar wall will keep it dry even against a slight pressure.

The principal cause of the dampness on the plaster in a house is due to condensation. People seeing that it collects on the walls think that it comes in from the outside; while as a matter of fact, it collects there because

the outside walls are cold, and the air of the house on striking them has its temperature reduced below the saturation point and deposits its moisture on the walls. If the exterior temperature is low enough and the wall thin enough not only will the moisture be deposited but it will freeze as it does on any window pane in winter. Other things being equal the better an insulator a wall is, that is, the warmer it is, the less dampness will collect on it and the drier the house will seem. Therefore, as the terra cotta wall is the warmer, so, as a consequence, it is the drier.

An important question is whether the hollow tile wall is strong enough. Laboratory tests show that it is, but it will do no harm to take it up in another way. In an ordinary two story and attic dwelling, with 12 inch brick walls, and 20 foot span of beams, the weight per running foot on the wall at the bottom of the first story beams is

between  $2\frac{1}{2}$  and 3 tons, taking brick at 125 pounds per cubic foot, and the total live and dead load of floors at 60 pounds and of the roof at 40 pounds per square foot. The safe load for brick in cement mortar is 15 tons per square foot, according to the building code of New York. The factor of safety is 10 by the same code. The area of solids in a horizontal section of an 8 inch by 12 inch tile, with  $\frac{3}{4}$  inch sides and partitions, is 44 square inches, thirty per cent of the area of a 12 inch brick wall, and therefore it has thirty per cent of the weight per cubic foot or  $37\frac{1}{2}$  pounds. Taking the same live and dead loads as before for the floors and roof, the weight per running foot at the bottom of



the first floor beams is from  $1\frac{3}{4}$  to 2 tons. But the bearing area of the hollow tile is not its total horizontal area; the cross partitions may come over each other in successive courses or they may not, so their area can not be counted on. This leaves 27 square inches of bearing area, approximately twenty per cent of a square foot, instead of thirty per cent. The tile is stronger than most common brick, and it is therefore safe to take twenty per cent of the safe load allowed for brick walls, or 3 tons per square foot, as the safe load for tile walls. The difference between this and the actual load of 2 tons is sufficient to allow for beam bearings and window openings and for a great many defects in the way of uneven bearings of tile, poor joints, etc., without infringing on the factor for safety.

An 8 inch hollow tile wall is not however thick and heavy enough for absolute security in stiffness, unless the precaution is taken to use beams that will not spring, and to construct the roof so that the oblique thrust on

the walls is slight. The latter does not require great care and the sizes for beams given by Kidder, or prescribed by the building codes, are sufficient for the former. If the economy to be observed in building permits, it is undoubtedly better to use a 12 inch thick tile for the lower story at least, for additional stability, but it must be remembered that not only must one-third more tile be paid for, but that there is a loss of 8 inches in the length and breadth of the available space inside the walls.

In the foregoing paragraphs we have been considering this method of construction theoretically. The practical application and its results prove the theory to be correct.

In the house illustrated, there have been no cracks; there is no vibration of the walls, so that they are proven strong enough. The balcony cantilevers out from the wall where the openings are comparatively great and where, on account of the stair well, there is little or no bracing from the beams, so that the matter of stiffness is settled. As for warmth, it is heated by a hot air furnace. It is in an exposed situation where one would hesitate to attempt to heat a frame house by hot air. As for dampness, its cellar was flooded early by an open cock and again before and during and after the plastering by seepage, yet after it had once dried out, the trim went on and stayed where it was put, the floors remained flat and close, and the wall paper, which was put on while there were several inches of water in the cellar, has stayed on.

In the minor matters of construction, the methods pursued are obvious and simple. They have been described in previous numbers in *THE BRICKBUILDER*, so that only a brief résumé of them will be given here, touching on the small things that are bothersome until it is seen how simple they are.

In making the lintels over the windows the contractor had the choice of three methods; either brick arches with the inside bricks hollow, or reinforced concrete, or hollow tile reinforced by stringing the requisite number of tile on a couple of rods and filling around the rods with concrete. He chose the last partly because it was the easiest, and partly because it was the best method, all things duly considered. In making sills and band courses a row of tile of somewhere near the right thickness was laid

sidewise, projecting as far as desired. For sills, a reinforcing rod was used as in the lintels, and it seems advisable. It is not, however, indispensable.

In order to get a deeper outside reveal the window boxes were set flush with the inside of the wall. As jamb blocks come made for about 2 inch reveal this leaves a space to be filled with hollow brick, broken tile, mortar or whatever may be at hand. It makes no difference if such a place be solid for the interposition of the window box and the trim takes care of heat and moisture; but the spaces between the box and the terra cotta should be well filled to leave no cracks for the wind to blow through. Lacking specially moulded jamb

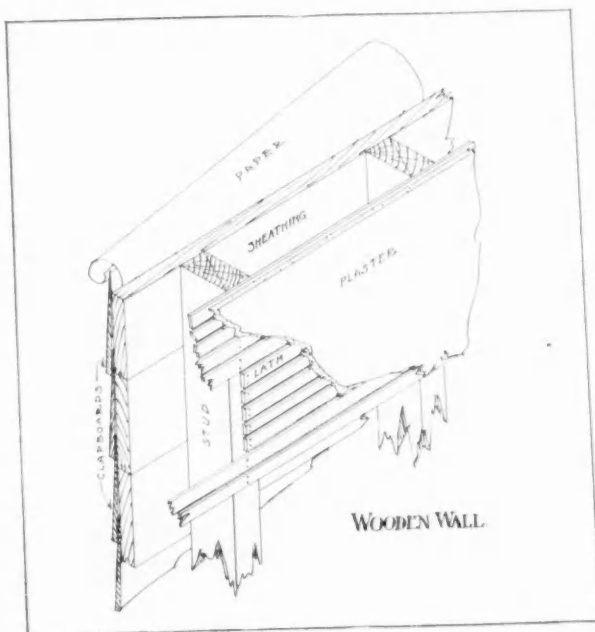
blocks, it is a simple matter to break the corner of a block and have about as good a block for the purpose as those especially made for it.

For the beam bearings it is generally customary to lay a flat row of 1 inch thick tile — hollow bricks will do as well. Flat pieces of broken hollow tile will do if well bedded in mortar, for the object is not so much to distribute the weight on the tile as to distribute it on the bottom of the beam. The tile courses generally do not work out just to the height of the beams so that hollow brick is perhaps the best way of building up to the bearings. In between the beams filling can be either hollow brick or tile;

with 2 inch thick beams 16 inch o.c. a 12 inch tile with plenty of mortar comes near enough to filling the space.

In building up area walls and step foundations and step buttresses the hollow tile that was left after completing the main walls was used, and was, of course, cheaper than anything that could have been especially procured for the purpose; and with precautions against frost answered quite as well.

There seems no need of painting the inside of the wall with damp-proof paint before plastering, unless the house is to be decorated with paint and not papered. In that case it is best to paint the walls to guard against the chance of stain coming through the plaster. It comes probably from smoke deposits on the blocks in the kilns. It may be some constituent of the block itself. It is, however, apt to make itself apparent enough to spoil painted plaster but it does not discolor wall paper.



A BRICK three thousand years old was recently received by the museum of the Dutch Reformed Theological Seminary at New Brunswick, N. J. It is a sun-baked brick about 11 inches square and was excavated in Nippur by the Babylonian expedition of the University of Pennsylvania. It was presented to Dr. Thomas of the Arabian

Mission of the Reformed Church by Dr. H. V. Hilprecht, and its age is estimated at three thousand years. It contains ten lines of inscription in cuneiform writing of Sumerian origin. The brick formed part of the Temple of Bel on the eastern side of the Strait-en-Nil, the Biblical Chebar of Ezekiel. Nippur was a suburb of Babylon.





HOUSE BY FOSTER, GADE &amp; GRAHAM, ARCHITECTS.



PUMP HOUSE.

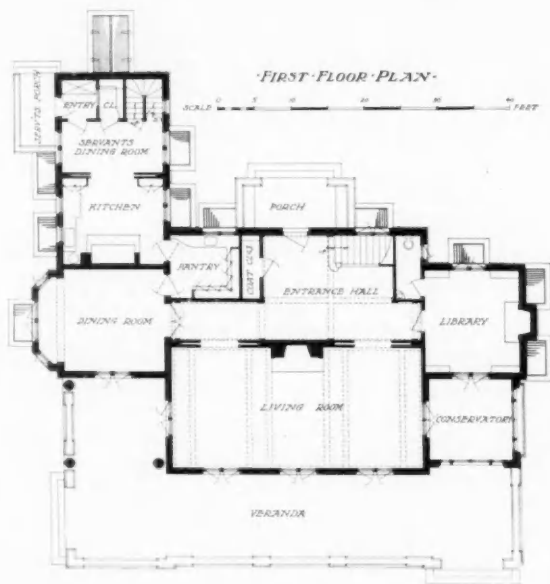
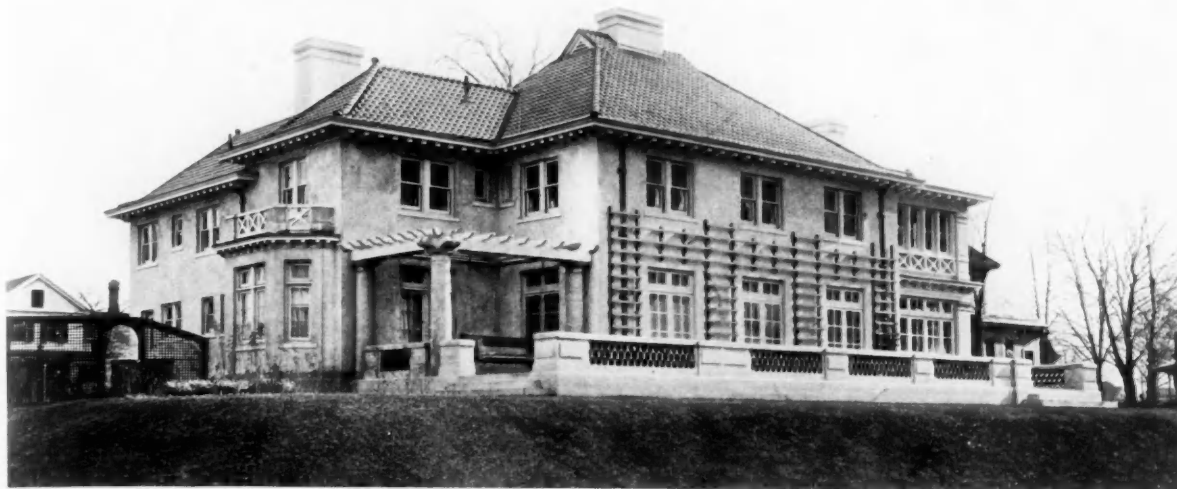


BUNGALOW BY PAUL BOURGEOIS, ARCHITECT.



BATHING PAVILION.

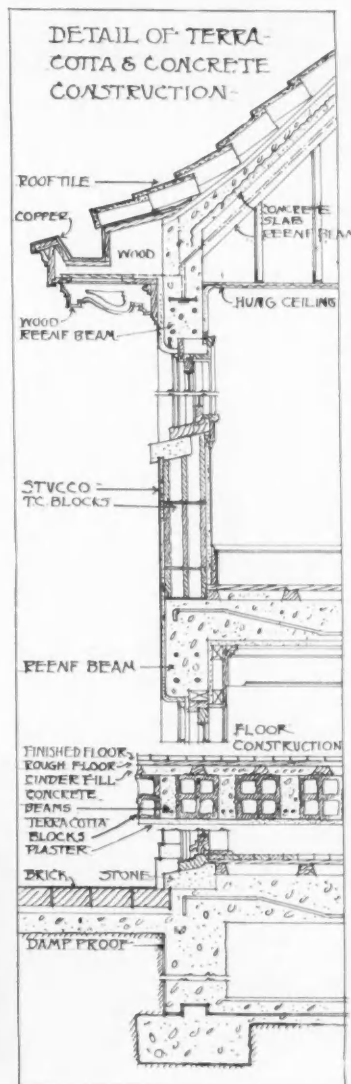
A GROUP OF BUILDINGS BUILT OF TERRA COTTA HOLLOW TILE BLOCKS.



# HOUSE AT SPRINGFIELD, MASS.

Built of terra cotta hollow  
tile blocks with plaster  
finish.

ROBINS & OAKMAN,  
ARCHITECTS.



## Editorial Comment and Miscellany.

### MR. STURGIS AND THE BOSTON SCHOOLHOUSE COMMISSION.

IN THE May issue comment was made in these columns on the dismissal of Mr. Perkins by the Chicago Board of Education. We are now forced to note the retirement, from the same field of endeavor, of Mr. Sturgis, who has for eight years been chairman of the Schoolhouse Commission of Boston. Thus, within a brief time, two out of the four leading experts on schoolhouse construction have been forced to cease their labors for the public good. For while the formalities of the two cases were somewhat different, in that while Mr. Perkins was dismissed Mr. Sturgis voluntarily resigned, it was merely another manifestation of the same underlying force that drove Mr. Sturgis to end a public service in which he took the keenest interest and by his performance of which he has placed Boston among the real leaders in scientific school building.

It was primarily a lack of real appreciation and support of expert service that moved in each case.

For eight years Mr. Sturgis carried forward the study of the problems involved with a thoroughness that brought consistent progress, evidenced in a series of annual reports of recognized authority as well on broad questions of planning as on the minor details of construction and fittings. Standards were quickly established by which to determine economical planning, and these standards were carefully adjusted to the shifting requirements of the primary, grammar, and high school grades. An immense amount of this work fell necessarily on the shoulders of Mr. Sturgis, for however able the other commissioners might be, it demanded a man of professional training to direct a steadily and consistently progressive policy of construction in a series of schools designed by various independent architects.

It is not to be wondered at that during these years Mr. Sturgis gained the conviction that there was needed on the Commission at least one other who could relieve the chairman of many details of the work demanding professional supervision, freeing the chairman's time for the consideration of the larger problems.

It is to be wondered at that anyone with less experience in the work should see fit to combat Mr. Sturgis' conviction; and that the Civil Service Commission should have approved the Mayor's recent nomination to the Board against the judgment of Mr. Sturgis, even had it gone without confirmatory evidence from the building trades, is one of those official errors that unfortunately can be neither explained nor remedied.

The man who dives in shallow water cannot lay all the blame to the water if he strikes his head against the bottom. So if, in the course of his political appointments, an unfit man is by some chance confirmed, Mayor Fitzgerald cannot shift the blame entirely on the confirming commission, but must shoulder the responsibility for the initial action in the appointment, and in this case must bear the responsibility of the resultant loss to the public service of one of its few expert officers.

Perhaps the greatest wonder is that Mr. Sturgis has

kept himself in the service so long. The constant fight that is necessary with the different forces that hinder the best progress of work in municipal departments must have put great strain on his sense of public duty, and his desire to see the department to which he has devoted so much labor established on a firm basis which would insure continued sane progress must have clashed often with his desire for surcease from the petty annoyances under which he worked.

To his strong and logical stand for first class construction, the coming years will pay tribute in practical results. Unfortunately, however, permanence of construction is less spectacular than low first cost, and it takes an enlightened public opinion to support an official who has the wisdom to adopt and the courage to maintain a far-seeing policy whose watchword is, "It's cheaper in the end," which, after all, is the true economy.

It is rather amusing, to those who have some insight into the professional problems involved in the work, to find that the chairman of the School Committee is willing to state publicly that he does not believe it is necessary to have an architect as chairman of the Schoolhouse Commission. Verily the unpardonable sin is ignorance of one's own ignorance.

After all, as has been noted in the press editorially, the unfortunate retirement of Mr. Sturgis is but an unusually suggestive sign of the political conditions now existing, which tend to drive from public service the particular type of man most needed at the present day, of which type Mr. Sturgis is a conspicuous example.

### THE SMALL BRICK HOUSE COMPETITION.

#### AWARD OF PRIZES.

THE Jury for the Small Brick House Competition which was conducted by THE BRICKBUILDER has awarded first prize (\$500) to William Boyd, Jr., Pittsburgh; second prize (\$250) to Francis D. Bulman, Boston; third prize (\$150) to Steward Wagner, New York; fourth prize (\$100) to A. R. Nadel, Boston; first mention to C. Edward Arnemann, Weehawken, N. J.; second mention to D. D. Barnes and W. A. Neate, Boston; third mention to Charles F. Hogeboom, Brooklyn; fourth mention to Albert G. Hopkins, Boston; fifth mention to Charles Sumner Schneider, Cleveland; sixth mention to Howard A. Goodspeed, Boston.

The competition was judged in Pittsburgh, June 7th and 8th, by Messrs. Benno Janssen (Janssen & Abbott); Howard K. Jones (Alden & Harlow); Frederick A. Russell, Frank E. Rutan (Rutan & Russell); and Albert H. Spahr (MacClure & Spahr).

The Prize and Mention designs with the report of the Jury of Award will be published in THE BRICKBUILDER for July.

The series of articles, "Hints on Architectural Acoustics," by Hugh Tallant, begun in THE BRICKBUILDER for May, will be resumed in the July number.





HOUSE RECENTLY EXHIBITED IN MADISON SQUARE GARDEN, NEW YORK.

Built of terra cotta hollow tile blocks, with plastering applied direct to the blocks both inside and out. This house was not "poured," nevertheless it was built complete in every detail in fifty-six hours.

## Plate Illustrations— Description.

HOUSE IN RADNOR TOWNSHIP, DEL-AWARE CO., PA. PLATES 73, 74, 75. The house is situated on high ground falling away to the south. The porte-cochère and front entrance are on the north side. The roof is of tiles  $\frac{3}{4}$  inch thick, with a general tone of dark red, the monotony of which is relieved by the use of about five different shades put on at random. The walls are of re-pressed red brick laid up with dark mortar joints. They consist of an outer and an inner wall, each 9 inches thick, of brick, with a 4 inch air space between. The interior bearing walls are of brick and the partitions of hollow tile. Upon the interior, the main hall, the stair hall and stairway are wainscoted to the ceiling in fumed oak paneling. The dining room is wainscoted in oak to a height of 5 feet with the wall space above divided into large panels, covered with red Italian damask. The woodwork in the library is of Italian walnut with a wainscot 6 feet 6 inches high, while the finish in the breakfast room is white, with the wall spaces divided into large panels above a low wainscot and treated in gray tones. The cost of the house approximates 17 cents per cubic foot; the cubical contents being taken from the cellar floor to half the height of the roof. The porte-cochère loggia and covered porches are also included in the cubical contents, but no account is taken of the uncovered terraces or the wall enclosing the kitchen yard. The cubing does not apply to the stable buildings, etc. These latter consist of a garage with men's rooms and water tower above, the greenhouse with a potting house attached, the stable with coachman's and men's quarters,

and the barn. These buildings are all connected to the house by walls, giving a series of courts and forming a group of buildings in one composition.

HOUSE AT WILLIAMSTOWN, MASS. PLATES 78, 79. The exterior is treated in brick, painted white. The interior detail is painted white, with doors of mahogany or of glazed sash. The only exception to the general treatment is in the billiard room, which is finished in gum wood in its natural color.

A HOUSE AND GARDEN AT WENHAM, MASS. PLATES 84, 85. The house is situated on a knoll overlooking a lake. It is built of Harvard brick with a base course of granite, limestone trimmings, wooden cornice and copper gutter. The roof is shingled in double courses 7 inches to weather, stained a weathered gray. The avenue of approach leads to a fore-court enclosed by high brick walls on part of two sides and a low stone wall on the other with a border of planting around the base. The hall is paneled to the ceiling and painted white, while the dining room

is paneled to the ceiling in gum wood. French windows on either side of the mantel open upon a screened breakfast porch which overlooks the lake. From the music room, which has gray panels extending to the ceiling, are French windows opening on to a covered porch overlooking the garden. The library is paneled in oak with a limestone mantel and fireplace at the east end and bookcases from floor to ceiling at the west end.

HOUSE AT ARDSLEY-ON-THE-HUDSON, N. Y. PLATE 86. This house is on high ground overlooking the Hudson River, in consequence of which the principal rooms are all placed on the west side. The plan is simple and compact. The rooms are finished inside with white paint, except the dining room, which is paneled and painted a light French gray. The house is built of hard burned brick of



DETAIL BY ALEXANDER C. ESCH-WEILER, ARCHITECT.  
American Terra Cotta Company, Makers.



SALES GARAGE FOR THE CHICAGO MOTOR CAR COMPANY, CHICAGO.

Trim of white enameled terra cotta by the Northwestern Terra Cotta Company.

Albert Kahn, Architect.

an exceptionally bright red, with a wooden cornice and trim painted white, and with blinds painted white and a bluish green. The cost amounted to about 33 cents per cubic foot, reckoning the height from the basement floor to the middle of the roof. The contract price was about \$26,000.

#### GREATER BERLIN.

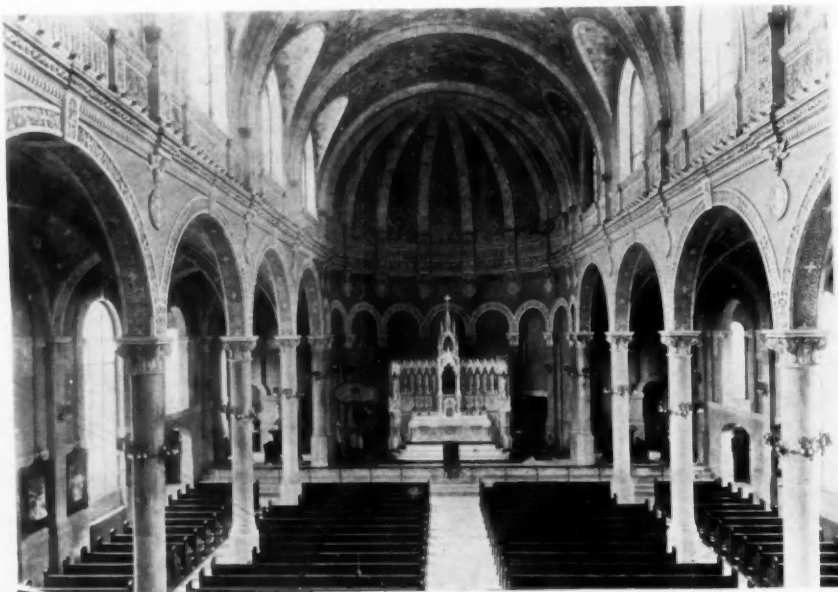
**P**LANs for a "Greater Berlin" have just been worked out as the result of a prize competition between leading architects, builders, and town planners. Prizes of £1,250 each have been awarded for schemes which provide for three generations into the future and contemplate the Berlin that will be in the year 2000, which is fixed as the period when the capital will teem with a population of 10,000,000. It is proposed to avert the evils of such an immense population by a far-sighted plan to regulate the construction of street buildings and parks so carefully that overcrowding will be practically impossible.

#### THE EXHIBITION AT BERLIN.



FACE OF BRACKET.  
Ketcham Terra Cotta  
Works, Makers.  
Charles R. Greco,  
Architect.

**A** VERY interesting exhibition has just been opened in Berlin; unique, too, of its kind, as nothing like it has been attempted in any other country. It is, as described by the Berlin correspondent of the *Observer*, an assemblage of all that can direct the makers of cities in the laying-out, building, and organization of an ideal place of residence for populations, large or small. Plans, pictures, photographs, and models of parks, streets, and houses are to be seen, and not alone of the Greater Berlin of the future, which is even now engaging municipal attention in the German capital, but of cities like London, New York, Paris, Boston, and Chicago. It is recognized in Germany that a great, and



INTERIOR, CHURCH OF OUR LADY OF MERCY, BROOKLYN.

Interior finish entirely in burnt clay. The bricks are a light buff shade, furnished by Fiske & Co. The ceiling is of Guastavino tile of a soft pink shade. The terra cotta is executed in white, greens and yellows, and was made by the Atlantic Terra Cotta Company.  
T. H. Poole, Architect.

perhaps the chief, glory of the nineteenth century is the public awakening which occurred during its last quarter, to the so-called "social question," and particularly that part of it which is concerned with the organization of towns with a view to dwelling, to transport, and to the exploitation of the town's natural surroundings for keeping strong and healthy its in-

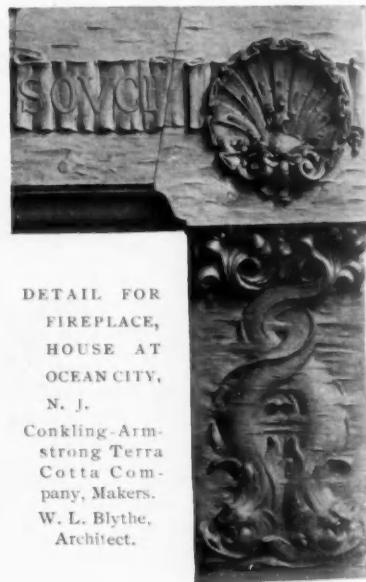
habitants of every class down to the poorest.

#### BUILDING OPERATIONS FOR MAY.

**O**FFICIAL returns from forty-four cities throughout the country regularly reported to *The American Contractor*, New York, show an aggregate loss for May, 1910, of seventeen per cent as compared with May, 1909. The decrease in the great building centers, New York and Chicago, some \$12,000,000, must accept nearly all the blame for the shortage.

#### IN GENERAL.

Three graduate fellowships in architecture are announced by the University of Pennsylvania for annual award during a term of years beginning in September, 1910. These awards are based upon a fund established for the purpose by the General Architectural Alumni Society of the University. The fellowships are open, without restriction as to age, to graduates of American schools who hold a bachelor's degree in architecture equivalent to that



DETAIL FOR  
FIREPLACE,  
HOUSE AT  
OCEAN CITY,  
N. J.

Conkling-Armstrong Terra  
Cotta Company, Makers.  
W. L. Blythe,  
Architect.

at the University of Pennsylvania. Inquiries regarding the fellowships may be addressed to Warren Powers Laird, Professor of Architecture, University of Pennsylvania, Philadelphia.

A series of University Extension Courses will be given in Boston during the coming winter under the direction of Harvard University. These courses will be of college grade and will count for a college degree. Tuition fees vary from \$5.00 to \$20.00 a course. Full information may be had from the Commission on Extension Courses, University Hall, Cambridge, Mass.

The Ohio State University, Columbus, Ohio, has issued an attractive pamphlet descriptive of the work which is carried on in its Department of Architecture.

H. Toler Booraem, architect, Morristown, N. J., died at Saranac Lake, N. Y., June 3d. Mr. Booraem had for a number of years looked after the building interests of the Mutual Life Insurance Company of New York.

The new Club House of the St. Louis Architectural Club, 514 Culver Way, was dedicated on Saturday, June 11th.

A new hotel costing approximately \$650,000 is to be built at Galveston, Texas, Mauran & Russell of St. Louis, architects. With the establishment of a chain of hotels on the western coast of Florida, and the building of the hotel at Galveston, in addition to the admirable hotels now at San Antonio, Texas, the southern Atlantic and gulf coasts are likely to become an American "Riviera" where tourists may journey nearly to the borders of Mexico and be assured of the best hotel accommodations.

Walter J. Skinner and C. Wellington Walker, Jr., have formed a co-partnership for the practice of architecture under the firm name of Skinner & Walker, offices Newfield Building, Bridgeport, Conn. Manufacturers' catalogues desired.

The firm of Charles W. Dawson, architect, is succeeded by the firm of Dawson, Kedian & Valeur, offices Iowa Building, Muskogee, Okla.

William H. Boylan, architect, formerly of the firm of Merchant & Boy-



DETAIL BY ROUSE & GOLDSTONE, ARCHITECTS.  
New York Architectural Terra Cotta Company, Makers.

of Tousley & Thébaud, offices Bangor Building, Cleveland.

Davis, McGrath & Kiessling, architects, have removed their offices from 1 Madison avenue to the Flatiron Building, New York.

Harry L. Brickell, architect, has opened an office at 403 West Ferry street, Buffalo, N. Y. Manufacturers' catalogues and samples desired.

The Atlantic Terra Cotta Company will furnish the architectural terra cotta for the following named new buildings: Pennsylvania Railroad Station at Baltimore, K. M. Murchison, architect (exterior and interior in polychrome); Jenkins Arcade, Pittsburg, O. M. Topp, architect (glaze and standard finish); Douglass School, Cincinnati, Ohio, Garber & Woodward, architects (mat glaze); Sinclair Building, Fourth Ave., New York, Carrere & Hastings, architects (standard).

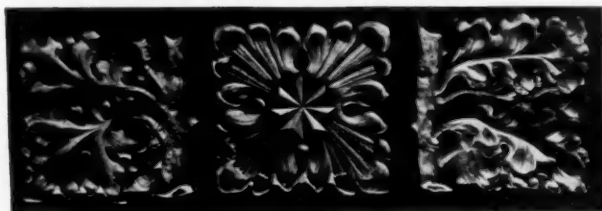


DETAIL BY H. J. HARDENBERG, ARCHITECT.  
New Jersey Terra Cotta Company, Makers.

The houses with walls of terra cotta hollow tiles, illustrated and described on another page of this issue, were built of "NATCO" tiles manufactured by the National Fire Proofing Company.

The Patio in the International Bureau of American Republics Building, Washington, D. C., a detail of which is illustrated on another page of this issue, has a large amount of polychrome terra cotta used in a decorative way. The work was furnished by the Atlantic Terra Cotta Company.

"Artistic Brick and the Textile Principle in Brickwork" is the title of an unusually attractive booklet which has just been issued by Thomas Moulding Company, Chicago. The work is especially valuable because of the new thought which it contains relative to the weaving of a wholesome and dignified texture into brickwork.



DETAILS FOR SCHOOLHOUSE.  
South Amboy Terra Cotta Company, Makers.  
C. B. J. Snyder, Architect.





CAPITAL BY ALEX. BAYLIES,  
ARCHITECT.

Brick, Terra Cotta and Tile Company,  
Makers.

#### NEW BOOKS.

**DISTINCTIVE HOMES OF MODERATE COST:** Being a collection of country and suburban homes in good taste, with some value in suggestion for the home-builder. Edited by Henry H. Saylor. New York, McBride, Winston & Co.

#### ESTIMATING FRAME AND BRICK HOUSES:

Barns, stables, factories, and outbuildings. Eighth edition, enlarged, amended and modernized, by Fred. T. Hodgson. Containing a detailed estimate of a \$5,000 house and additions. Detailed estimates of kitchen, dining room, parlor, den, halls, bedrooms, conservatory, basement, bathroom, closets, etc., all figured out and measured by the quickest and simplest methods. Also showing how to estimate by cubing, by the square of floors or walls, and by the process of comparison; with hints and practical suggestions for taking measurements and making tenders for work. New York, David Williams Company.

**THE NEW BUILDING ESTIMATOR:** Third edition. A practical guide to estimating the cost of labor and material in building construction, from excavation to finish; with various practical examples of work presented in detail, and with labor figured chiefly in hours and quantities.

#### NOTICE TO ARCHITECTS.

City of Albany, N. Y.,—Board of Contract and Supply.—Competitive plans from professional architects who shall be willing to compete in the preparation of plans for the construction of a new High School building to be erected upon the site to be acquired for that purpose by the City of Albany, N. Y., will be received by the Board of Contract and Supply of said city at its office in the City Hall until Saturday, September 10, 1910, at 12 o'clock noon of that day.

The program governing the competition can be obtained at the office of the Board of Contract and Supply, City Hall, Albany, N. Y.

Dated Albany, N. Y., June 2, 1910.

ISIDORE WACHSMAN,  
*Secretary of the Board.*

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**FULL INFORMATION** may be secured through application to the Dean of The College Department, Dr. GEORGE E. FISHER, University of Pennsylvania, Philadelphia, Pa.



TABLE LEG.

Executed in terra cotta by the Atlantic Terra Cotta Company.

A handbook for architects, builders, contractors, appraisers, engineers, superintendents and draftsmen. By William Arthur. New York, David Williams Company.

**HICKS' BUILDERS' GUIDE:** Comprising an easy, practical system of estimating material and labor for carpenters, contractors and builders. Revised and enlarged by I. P. Hicks. Price \$1. New York, David Williams Company.

**"SPECIFICATION BLANKS,"** by T. Robert Wieger, architect (formerly with F. E. Kidder). Forms for all classes of buildings, each trade separate. Complete set, 44 pages, 25 cents. Reduction on quantities. Sample page upon request. 628-14th street, Denver, Colo.

**ARCHITECTS AND DRAFTSMEN—I REGISTER ASSISTANTS FOR THE ARCHITECTURAL PROFESSION EXCLUSIVELY IN AND FOR ANY PART OF THE UNITED STATES.** HAVE CALLS FOR HELP CONTINUALLY FROM THE BEST OF OFFICES IN ALL PARTS OF THE COUNTRY. MY LIST CONSISTS OF THE HIGHEST GRADE TECHNICAL MEN. NO REGISTRATION FEE AND REASONABLE TERMS. IF YOU ARE NEEDING HELP OR SEEKING A GOOD POSITION, WRITE ME. LEO A. PEREIRA, 218 LA SALLE ST., CHICAGO. Long Distance Tel., Franklin 1328.

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The quality of our work has passed the inspection of the United States Government and numerous Architects and Builders.

The Franklin Union Building in Boston, R. Clipston Sturgis, Architect, is a sample of our work, and we have contracts for the North Dakota, the largest Battleship in the United States Navy; the extensions of the Suffolk County Court House in Boston, George A. Clough, Architect; and the Registry of Deeds, Salem, Mass., C. H. Blackall, Architect.

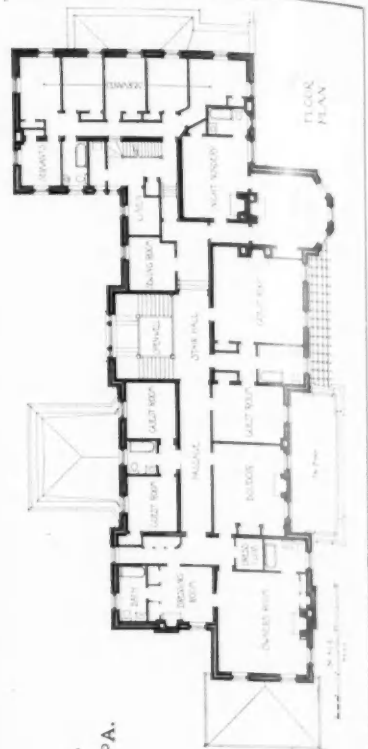
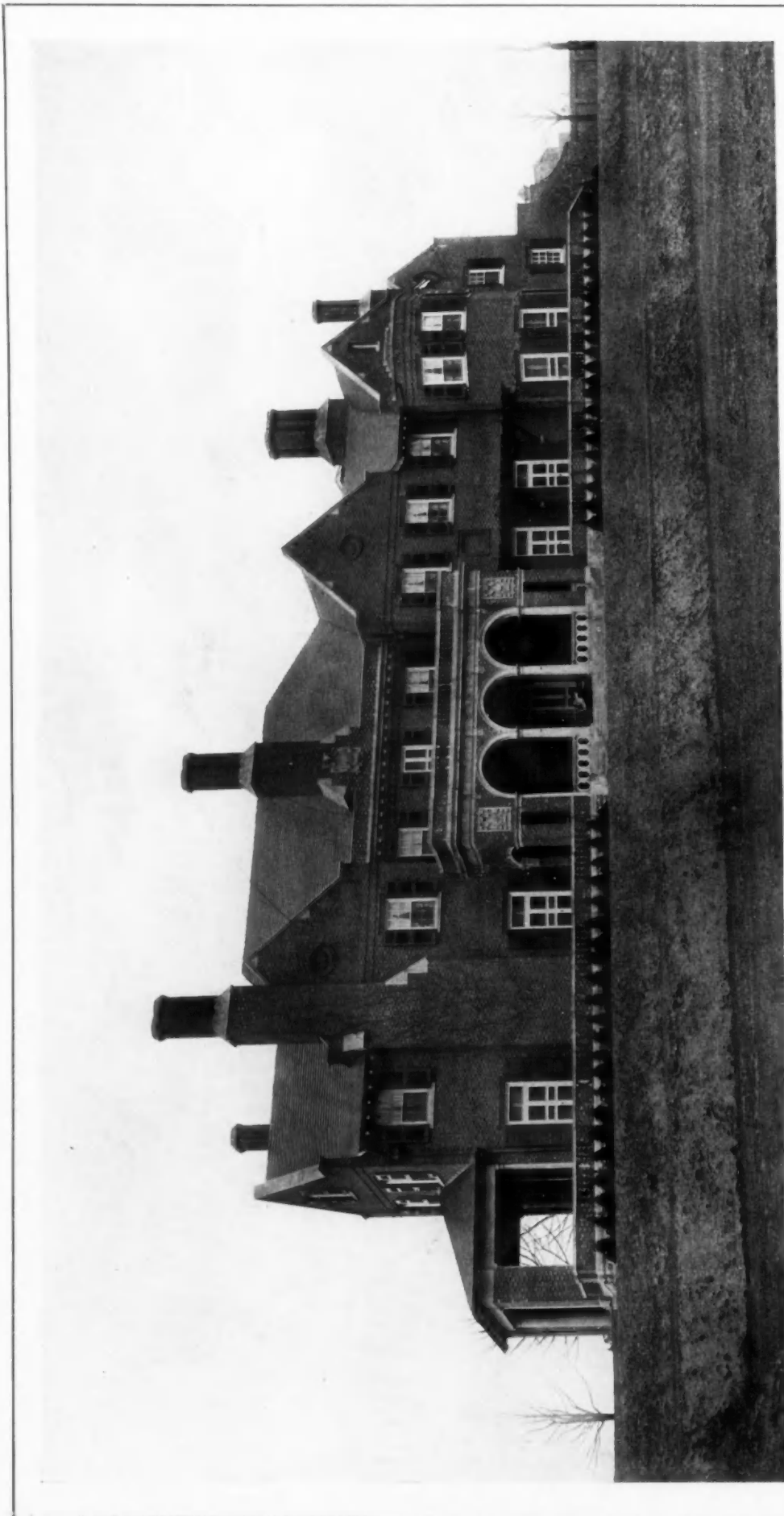
We solicit inquiries and correspondence.

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HOUSE IN  
RADNOR TOWNSHIP,  
DELAWARE COUNTY, PA.

GEORGE BISPHAM PAGE,  
ARCHITECT.

